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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/790,906 | 03/01/2004 | Andrew S. Hildebrant | 10030795-1 | 1413 |

7590 05/18/2006
AGILENT TECHNOLOGIES, INC.
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EXAMINER

TU, CHRISTINE TRINH LE

ART UNIT PAPER NUMBER

2138

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/790,906 | Applicant(s) HILDEBRANT, ANDREW S. | |
| | Examiner Christine T. Tu | Art Unit 2138 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. Figures 1 and 3 are objected to under 37C.F.R. 1.84(o). All features represented by boxes in the figures each of which must be labeled with a term which indicates what element the box represents. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim1 is objected to because of the following informalities:

Claim 1:

At line 6, the term "said test data" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8:

At line 2, the term "said wireless interface" is unclear. It is not clear whether the term "said wireless interface" refers to the "wireless interface" at line 3 or at line 11 of claim 7.

Claim 9:

This claim is rejected because it depends on claim 8 and contains the same problems of indefiniteness.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reis et al. (6,807,644 and Reis hereinafter).

Claim 1:

Reis discloses the invention substantially as claimed. Reis teaches (figures 2, 5 & 7) that a downlink transceivers(TR2), which arrange the signals to be transmitted to an asynchronous transmission path (ATP), is connected to the side of the transmission path of the test access ports (TAP) of the device under test (DUT), wherein the asynchronous transmission path may be wireless. Reis further teaches the downlink transceiver (500) (TR2) generates TDI signals from received TMS-TDI packets, and forwards the test data output TDO obtained from the output of boundary scan cell chain of the DUT to the transmission path (figure 2, 5 & 7, column 3 line 52-column 4 line 15, column 5 lines 43-51).

Reis does not explicitly teach a functional block. Reis, however, teaches (figure 7) that each of JTAG compatible circuits (U1 & U2) (in the DUT) comprises a JTAG controller C and the boundary scan register of 27 boundary scan cells BSC (column 6 lines 51-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to realize that Reis' JTAG controller C (in figure 7) would have been named as a "functional block". One having ordinary skill in the art would be motivated to realize so because (a) Reis teaches that the JTAG controller C comprises a By-Pass Register OPR and possibly other data registers and (b) naming Reis' JTAG

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controller C as a “functional block” would not affect the performance of the Reis' JTAG controller C.

Claims 2 and 3:

Reis teaches that the downlink transceiver (500) generates TDI signals from the received TMS-TDI packets, and to forward the test data output TDO obtained from DUT on a transmission path with protocol implementation (column 5 line 44-column 6 line 9).

Claims 4 and 6:

Reis teaches that plurality of boundary scan registers are loaded with TDI by TAP (figure 7).

Claim 5:

Reis does not teach the scan chain loading mechanism simultaneously loads a plurality of scan chains. However, Reis teaches that a DUT comprises 2 JTAG compatible circuits (U1 & U2), each of which comprises a boundary scan register having 27 boundary scan cells BSC. Reis also teaches the TAP is connected to a BSC of a circuit (U1) (figure 7, column 6 lines 51-65).

It would have been a matter of design choice for either serially testing all BSCs in both of the circuits (U1 & U2) or parallel testing/connecting the TAP to a BSC of each of circuits (U1 & U2). This is because such a choice would depend on the necessity type of test is needed to be done.

Claim 7:

This claim is similar to claim 1 with additional of a test station comprising a wireless interface. Reis teaches a system having a uplink transceiver (TR1) (figures 2 and 3, column 3 line 52-64, column 4 line 16-51).

Claims 8-12:

Claims 8-12 are rejected for reasons similar to those set forth against claims 2-6, respectively.

Claims 13 & 14:

Claims 13 & 14 are rejected for reasons similar to those set forth against claims 7 & 8, respectively.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine T. Tu whose telephone number is (571)272-3831. The examiner can normally be reached on Mon-Thur. 8:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571)272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Christine T. Tu
Primary Examiner
Art Unit 2138

May 12, 2006